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OF CHINA**

**中华人民共和国国家标准**

GB/T 14643.1-2009

Replaces GB/T 14643.1-1993

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**Examination of bacteria and algae in industrial  
circulating cooling water - Part 1: Examination of  
bacteria formed deposits—Standard of plate count**

**工业循环冷却水中菌藻的测定方法**

**第 1 部分：粘液形成菌的测定 平皿计数法**

**Issued on May 18, 2009**

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**Standardization Administration of the People's Republic of  
China**

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## Foreword

GB/T 14643 *Examination of Bacteria and Algae in Industrial Circulating Cooling Water* is divided into the following sections:

—Part 1: Examination of bacteria formed deposits Standard of plate count

—Part 2: Examination of soil bacteria Standard of plate count

—Part 3: Examination of slime fungus Standard of plate count

—Part 4: Examination of soil fungus Standard of plate count

—Part 5: Examination of sulfate reducing bacteria MPN method

—Part 6: Examination of iron bacteria MPN method

This section is part 1 of GB/T 14643.

This part replaces GB/T 14643.1-1993 *Industrial circulating cooling water--Examination of bacteria formed deposits--Standard of plate count*

Compared with the 3rd section of GB/T 14643.1-1, no modification is made in technical content, except for the text structure and texts.

This Part is proposed by China Petroleum and Chemical Industry Association.

This part is centralized by Water Treatment Agent Branch of National Standardization Technical Committee in Chemistry (SAC/TC 63/SC 5).

Unit which is responsible for drafting this Part: CNOOC Tianjin Chemical Research & Design Institute, Shanghai Weilai Enterprise Co., Ltd.

Main drafters of this part: Zhu Chuanjun, Liu Xin, Zhang Quan, Bai Ying, Li Lin.

This part was first issued in 1993.

# Examination of bacteria and algae in industrial circulating cooling water - Part 1: Examination of bacteria formed deposits— Standard of plate count

## 1 Scope

This part of GB/T 14643 specifies examination of bacteria formed deposits in industrial circulating cooling water.

This part applies to the examination of heterotrophic bacteria in suspended slime in industrial circulating cooling water, and the examination of heterotrophic bacteria in deposited slime in industrial circulating cooling water. It also applies to the examination of slime heterotrophic bacteria in raw water, domestic water and other water.

## 2 Normative references

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 603 Chemical reagent--Preparations of reagent solutions for use in test methods (GB/T 603-2002, ISO 6353-1:1982, NEQ)

GB/T 6682 Water for analytical laboratory use - Specification and test methods (GB/T 6682-2008, ISO 3696: 1987, MOD)

## 3 Method summary

In this method, No. 25 plankton net is used to collect the slime in circulating cooling water, the collected slime is fully grinded with quartz sand to make the cell scattered, and then plate counting technique is used to cultivate them under  $(29\pm 1)$  °C for 72h to measure the total number of heterotrophic bacteria in the slime.

## 4 Reagents and materials

Unless otherwise specified, the reagents in this part shall be analytical reagent and in compliance with the provisions of Grade III water in GB/T 6682.

Preparations and products needed in the trial shall be prepared based on the provision of GB/T 603 if there's no other requirement.



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